

MUC-1 tumor associated antigens for conditional CD40 activation

CD40, a part of the TNF receptor superfamily, is a co-stimulatory receptor that plays a critical role in the anti-tumor immune response by (i) priming tumor-specific T-cells,¹ and (ii) reprogramming the tumor-microenvironment (TME) to reduce fibrosis²

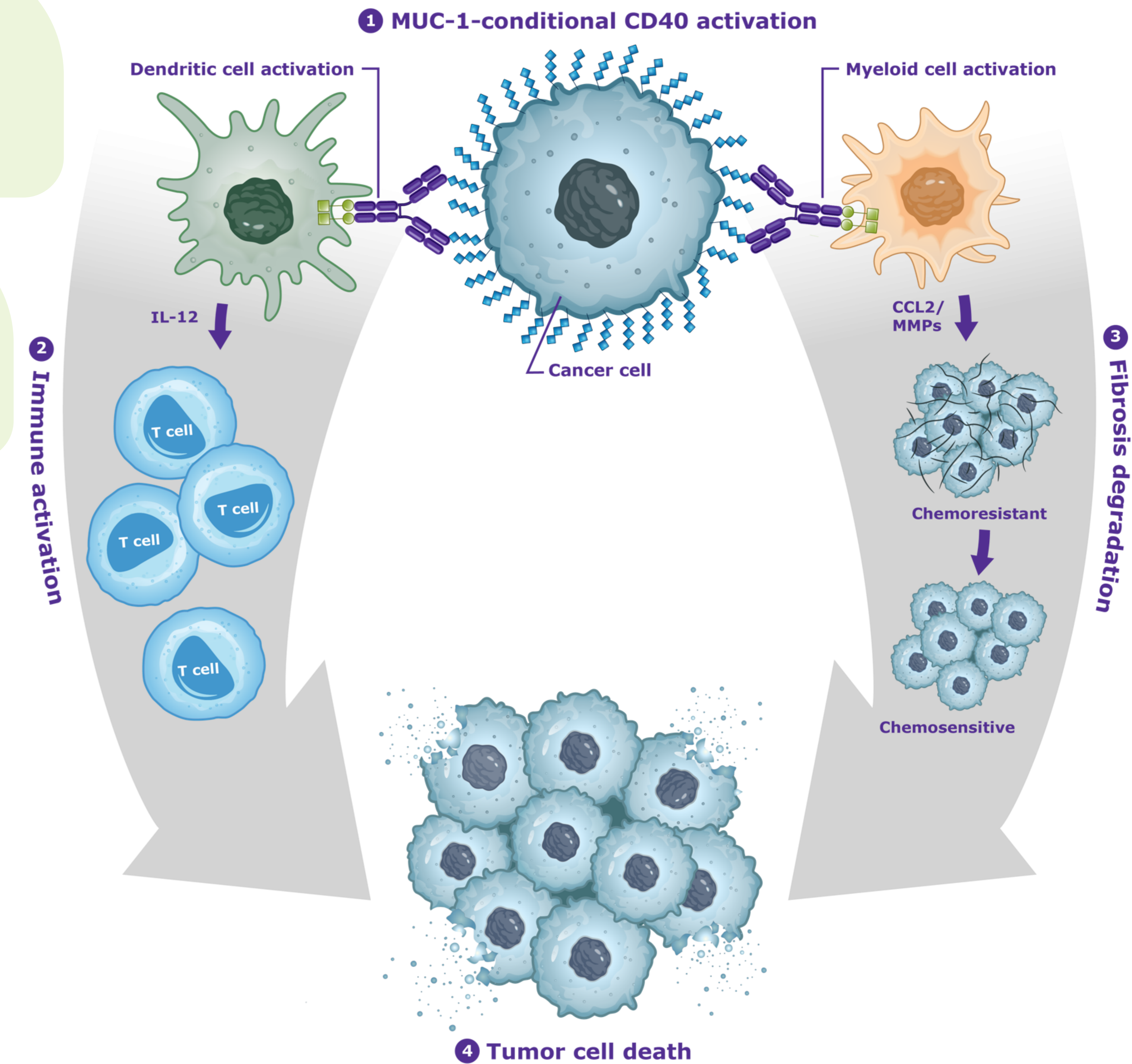
CD40 is expressed on antigen presenting cells but also on various other cell types, which has to date limited its therapeutic exploitation due to systemic toxicities such as liver toxicity, thrombocytopenia, and cytokine release syndrome³

Leveraging tumor-associated antigens (TAAs) to localize **CD40** activation to the TME could represent an approach to generating a tumor-specific immune response*

The glycoprotein **MUC-1** is one such TAA that is overexpressed in various malignancies, but not in key tissues associated with CD40-dependent toxicity. This tumor-specific overexpression may enable **selective CD40 activation** within the TME⁴⁻⁶

***This is under clinical investigation and has not been proven to be safe and effective.**

Hypothetical mechanism of conditional CD40 activation



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4. Tinder TL, et al. *J Immunol.* 2008;181(5):3116-25.

5. Nath S, Mukherjee P. *Trends Mol Med.* 2014;20(6):332-42.

6. Yamashita N, et al. *J Immunother Cancer.*

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